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10/728,054

12/04/2003

Velimir Pletikosa

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07/26/2006

RIDOUT & MAYBEE

SUITE 2400

ONE QUEEN STREET EAST

TORONTO, ON M5C3B1

CANADA

EXAMINER

PERVAN, MICHAEL

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/728,054	Applicant(s) PLETIKOSA ET AL.	
	Examiner Michael Pervan	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Santilli (US 5,675,361).

In regards to claim 1, Santilli discloses (Figure 1) an electronic device including: a display screen (display device 11); a keyboard (12) coupled by a processor (computer 10) to the display screen and having a plurality of keys (Figure 1; as can be seen from the drawing the keyboard has a plurality of keys and is coupled (connected) to the display screen (display device 11) by a processor (computer 10)), including a combined character and navigation key having a plurality of detectable input positions (col. 6, lines 35-51; in text mode, the keys input character information (first input position; depressed) in control mode the secondary keys move the cursor in response to the position of an object on the surface of the secondary keys (second input position; not depressed)) including at least one character input position corresponding to a character input for a displayable character (col. 6, lines 35-51; in text mode the keys input characters (text)) and at least one navigation control input position corresponding to a navigation control input for movement of a navigation indicator on the display screen (col. 6, lines 35-51; in control mode, the cursor is moved in response to the position of an object on the

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surface of the secondary keys), the combined character and navigation key providing tactile single click feedback to a user when the combined character and navigation key is moved to any of the input positions (It is inherent that keys on a keyboard provide tactile single click feedback (resistance) to the user, providing the user some feedback that a key has been depressed).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 5-7, 9-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santilli in view of Osawa et al (US 2001/0033270; as submitted by applicant).

In regards to claim 2, Santilli discloses the electronic device of claim 1 wherein the character and navigation key is a space bar key, the displayable character being a space character (col. 3, lines 61-63 and col. 6, lines 35-51; since the space bar is part of the primary group of keys, it can also be part of the secondary group of keys, which control cursor navigation (movement) when in control mode and input characters (text) in text mode).

Santilli does not disclose the space bar key having a first navigation control input position corresponding to movement of the navigation indicator in a first direction and a

second navigation control input position corresponding to movement of the navigation indicator in a second direction.

Osawa discloses a first navigation control input position corresponding to movement of the navigation indicator in a first direction and a second navigation control input position corresponding to movement of the navigation indicator in a second direction (Figure 3b; as can be seen from the drawing, the navigational input component (seesaw key 10) has both first (left arrow) and second (right arrow) navigational component inputs).

It would have been obvious at the time of invention to modify Santilli with the teachings of Osawa, a navigational input component for moving a navigation indicator on the display screen, by incorporating the navigational input component of Osawa into the space bar of Santilli because it would make the device thinner and more waterproof (paragraph 9, lines 2-3).

In regards to claim 5, Santilli does not disclose the electronic device of claim 2 wherein the first navigation control position corresponds to a left movement control input and the second navigation control position corresponds to a right movement control input.

Osawa discloses the first navigation control position corresponds to a left movement control input and the second navigation control position corresponds to a right movement control input (Figure 3b; as can be seen from the drawing, the navigational input component (seesaw key 10) has both first (left arrow) and second (right arrow) movement control inputs).

For motivation to combine, refer to claim 2.

In regards to claim 6, Santilli does not disclose the electronic device of claim 2 wherein the first navigation control position corresponds to an up movement control input and the second navigation control input position corresponds to a down movement control input.

Osawa discloses the first navigation control position corresponds to an up movement control input and the second navigation control input position corresponds to a down movement control input (Figure 3b; as can be seen from the drawing, the navigational input component (seesaw key 10) has both first (up arrow) and second (down arrow) movement control inputs).

For motivation to combine, refer to claim 2.

In regards to claim 7, Santilli discloses (Figure 1) the electronic device of claim 2 wherein the device includes a housing having a face in which the keyboard is mounted (Figure 1; as can be seen in the drawing, the keyboard is mounted in a housing having a face), the keys including a plurality of alphanumeric keys corresponding to alphanumeric character inputs (Figure 1; as can be seen in the drawing, the keys are alphanumeric, since there are both number and letter keys), the alphanumeric keys being arranged in a plurality of rows across the face (Figure 1; as can be seen in the drawing, the alphanumeric keys are arranged in a plurality of rows across the face), the space bar key being elongated relative to the alphanumeric keys and positioned on the face below the alphanumeric keys (Figure 1; as can be seen from the drawing, the space bar is elongated and positioned on the face below the alphanumeric keys).

In regards to claim 9, Santilli does not disclose the electronic device of claim 1 wherein the keyboard including a resilient member acting on the combined character and navigation key for providing the tactile single click feedback to a user when the combined character and navigation key is moved to any of the input positions.

Osawa discloses (Figure 2) the keyboard including a resilient member (dome portion 71, 72) acting on the combined character and navigation key for providing the tactile single click feedback to a user when the combined character and navigation key is moved to any of the input positions (Figure 2; as can be seen from the drawing, when the key (seesaw key) is moved to any input position it will cause the resilient member (dome portion 71, 72) to compress creating a tactile feedback (resistive force) pushing back toward the user).

For motivation to combine, refer to claim 2.

In regards to claim 10, Santilli does not disclose the electronic device of claim 9 wherein the keyboard includes a plurality of switches disposed on a printed circuit board adjacent the character and navigation key for detecting movement of the character and navigation key to the input positions, the plurality of switches including at least first and second switches and a central switch located between the first and second switches, the character and navigation key being displaceable towards the printed circuit board and pivotally mounted relative to the central switch for activating the first switch and the central switch independently of the second switch when a first peripheral region of the character and navigation key is pressed and activating the second switch and central

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switch independently of the first switch when a second peripheral region of the character and navigation key is pressed.

Osawa discloses (Figure 2) the keyboard includes a plurality of switches (contacts 51) disposed on a printed circuit board (base plate 5) adjacent the character and navigation key for detecting movement of the character and navigation key to the input positions, the plurality of switches including at least first and second switches and a central switch located between the first and second switches (Figure 2; as can be seen from the drawing, there is a central switch (dome portion 71) with switches on either side of it), the character and navigation key being displaceable towards the printed circuit board and pivotally mounted relative to the central switch for activating the first switch and the central switch independently of the second switch when a first peripheral region of the character and navigation key is pressed and activating the second switch and central switch independently of the first switch when a second peripheral region of the character and navigation key is pressed (paragraph 27, lines 10-11 and paragraph 31; since the key (seesaw key) selects one out of five contacts and be moved downwardly or toward one direction to cause first or second switch (contacts 51) to activate).

For motivation to combine, refer to claim 2.

In regards to claim 12, Santilli does not disclose the electronic device of claim 10 wherein the central switch includes the resilient member and the other switches provide substantially no biasing force against the character and navigation key.

Osawa discloses the central switch includes the resilient member and the other switches provide substantially no biasing force against the character and navigation key (Figure 2; as can be seen from the drawing, the central switch (contact 51) contains a resilient member (dome portion 71) and the other switches (contacts 51) do not provide any biasing force since there is no contact between the key and the resilient members (dome portion 72)).

For motivation to combine, refer to claim 2.

In regards to claim 13, Santilli does not disclose the electronic device of claim 10 wherein the central switch is a dome switch for providing single click tactile feed back when depressed by the character and navigation key and for biasing the character and navigation key into a resting position, the other switches being non-dome contact switches spaced apart from respective contact areas of the character and navigation key when the character and navigation key is in the resting position.

Osawa discloses (Figure 2) the central switch is a dome switch (dome portion 71) for providing single click tactile feed back when depressed by the character and navigation key (Figure 2; as can be seen from the drawing, when the key (seesaw key) is depressed the central switch is compressed providing a tactile feedback (resistive force) towards the user) and for biasing the character and navigation key into a resting position (Figure 2; as can be seen from the drawing, the central switch (dome portion 71) along with projection 62 provide bias the key into a resting position) the other switches being spaced apart from respective contact areas of the character and navigation key when the character and navigation key is in the resting position (Figure

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2; as can be seen from the drawing, the key (seesaw key) is in the resting position and the other switches are spaced apart).

For motivation to combine, refer to claim 2.

Osawa does not disclose the other switches being non-dome contact switches spaced apart from respective contact areas of the character and navigation key when the character and navigation key is in the resting position.

However, since the specification does not provide an advantage or benefit for having non-dome switches over dome switches, the examiner feels this to be a designer's choice because whether the switches are non-dome or domed, they will function in the same manner.

In regards to claim 14, Santilli does not disclose the electronic device of claim 10 wherein the plurality of switches includes third and fourth switches, the first, second, third and fourth switches being symmetrically positioned about the central switch, the character and navigation key being displaceable for activating the third switch and the central switch independently of the forth switch when a third peripheral region of the character and navigation key is pressed and activating the forth switch and central switch independently of the third switch when a forth peripheral region of the character and navigation key is pressed.

Osawa discloses the plurality of switches includes third and fourth switches, the first, second, third and fourth switches being symmetrically positioned about the central switch (Figure 3b; as can be seen from the drawing, the first, second, third and fourth switch are symmetrically positioned around the central switch), the character and

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navigation key being displaceable for activating the third switch and the central switch independently of the forth switch when a third peripheral region of the character and navigation key is pressed and activating the forth switch and central switch independently of the third switch when a forth peripheral region of the character and navigation key is pressed (paragraph 27, lines 10-11 and paragraph 31; since the key (seesaw key) selects one out of five contacts and be moved downwardly or toward one direction to cause third or fourth switch (contacts 51) to activate).

For motivation to combine, refer to claim 2.

5. Claims 3-4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santilli in view of Osawa et al in further view of Kocis et al (US 5,485,614).

In regards to claim 3, Santilli and Osawa do not disclose the electronic device of claim 2 wherein the keyboard includes a command key for sending a command input signal to the processor when in an activated position, the processor programmed for causing the navigation indicator on the display screen to move in the first direction when the command key is in the activated position while the space bar key is simultaneously in the first navigation control input position and to move in the second direction when the command key is in the activated position while the space bar key is simultaneously in the second navigation control input position.

Kocis discloses a keyboard including a command key for sending a command input signal to the processor when in an activated position (col. 9, lines 37-44; the command key (function key) signals the processor to allow for mouse emulation). By incorporating the command key (function key) of Kocis into the device of Santilli and

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Osawa, the device would operate in the manner as described in claim 3. By pressing the command key, the keyboard would enter control mode, but when not pressing the command key, the keyboard would be in text entry mode (keyboard mode).

It would have been obvious at the time of invention to modify Santilli and Osawa with the teachings of Kocis, keyboard including a command key, by incorporating the command key of Kocis into the keyboard of Santilli and Osawa because the user can keep his or her hands always on the keyboard and still control both the cursor and text entry.

In regards to claim 4, Santilli and Osawa disclose the electronic device of claim 3 wherein, in a text entry input mode, the processor is programmed for causing the space character to be added to text displayed on the display screen when the space bar key is in any of the detectable input positions and the command key is not simultaneously activated (col. 6, lines 35-56; in order to switch to the control mode, two keys are pressed simultaneously, so long as that does not occur the keyboard is in text entry mode (keyboard mode) and the space bar enters space characters to be entered no matter how it is activated).

In regards to claim 11, Santilli and Osawa do not disclose the electronic device of claim 10 wherein the keyboard includes a command key for sending a command input signal to the processor when in an activated position, the processor programmed for causing the navigation indicator on the display screen to move in a first direction when the command key is in the activated position while the first switch is simultaneously activated independently of the second switch, to move in a second direction when the

command key is in the activated position while the second switch is simultaneously activated independently of the first switch, and, in a text entry input mode, for causing the space character to be added to text displayed on the display screen when the command key is not activated and the central switch is activated.

Kocis discloses the keyboard includes a command key for sending a command input signal to the processor when in an activated position (col. 9, lines 37-44; the command key (function key) signals the processor to allow for mouse emulation). By incorporating the command key (function key) of Kocis into the device of Santilli and Osawa, the device would operate in the manner as described in claim 3. By pressing the command key, the keyboard would enter control mode, but when not pressing the command key, the keyboard would be in text entry mode (keyboard mode).

For motivation to combine, refer to claim 3.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Santilli in view of Osawa et al in further view of Lee et al (US 2002/0190957).

In regards to claim 8, Santilli and Osawa do not disclose the electronic device of claim 7 wherein the electronic device is a handheld device and the display screen is mounted within the face.

Lee discloses a handheld device with the display screen being mounted within the face (Figure 1; as can be seen from the drawing, the display screen is mounted within a face (case 13) of the device).

It would have been obvious at the time of invention to modify Santilli and Osawa with the teachings of Lee, a handheld device and the display screen is mounted within

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the face, by replacing the keyboard of Lee with the keyboard of Santilli and Osawa because the device would be more portable and easier to carry around.

7. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al in view of Osawa et al.

In regards to claim 15, Lee discloses (Figures 1 and 2) a hand-held electronic device comprising: a display screen (touch panel 14); a keyboard (12) mounted within a face of the device (Figure 1; as can be seen from the drawing, the keyboard is mounted within a face (housing 17) of the device) and comprising a plurality of alphanumeric keys arranged in a plurality of rows across the face between an upper edge and a bottom edge of the face (Figure 1; as can be seen from the drawing, the keyboard has a plurality of alphanumeric keys arranged in rows across the face), and a space bar key arranged closer to bottom edge of the face than the alphanumeric keys for inputting a space character for display on the display screen (Figure 1; as can be seen from the drawing, a space bar key is arranged at the bottom of the face below the alphanumeric keys) and a processor (CPU 22) for controlling the hand-held device (Figure 3), the processor coupled to the keyboard for receiving input signals therefrom and operatively coupled to the display screen (Figure 1 and paragraph 34, lines 5; the keyboard connects to the display screen (LCD display 14a) through the processor (CPU 22) via communication port 26).

Lee does not disclose the space bar key including a navigational input component for moving a navigation indicator on the display screen.

Osawa discloses a navigational input component for moving a navigation indicator on the display screen (paragraph 2, lines 6-10; the navigational input component (seesaw key 10) has five key contacts which enable a desired navigational input (function) to be selected and set).

It would have been obvious at the time of invention to modify Lee with the teachings of Osawa, a navigational input component for moving a navigation indicator on the display screen, by incorporating the navigational input component of Osawa into the spacebar of Lee because it would make the device thinner and more waterproof (paragraph 9, lines 2-3).

In regards to claim 16, Lee does not disclose the hand-held electronic device of claim 15 wherein the space bar key includes a left arrow navigational input component and a right arrow navigational input component.

Osawa discloses (Figure 3b) a left arrow navigational input component and a right arrow navigational input component (Figure 3b; as can be seen from the drawing, the navigational input component (seesaw key 10) has both left and right arrow navigational component inputs).

For motivation to combine, refer to claim 15.

In regards to claim 17, Lee does not disclose the hand-held electronic device of claim 16 wherein the space bar key includes an up arrow navigational input component and a down arrow navigational input component.

Osawa discloses an up arrow navigational input component and a down arrow navigational input component (Figure 3b; as can be seen from the drawing, the

navigational input component (seesaw key 10) has both up and down arrow navigational component inputs).

For motivation to combine, refer to claim 15.

8. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al in view of Osawa et al in further view of Kocis.

In regards to claim 18, Lee does not disclose the hand-held electronic device of claim 15 wherein the keyboard includes first and second dome switches disposed on a printed circuit board facing an underside of the space bar key, the space bar key being push-ably and pivotally mounted relative to the circuit board and having a left portion for activating the first dome switch when displaced towards the circuit board, and a right portion for activating the second dome switch when displaced towards the circuit board, the keyboard including a command key for signaling to the processor a left arrow navigational input when the first dome switch is activated independently of the second dome switch and simultaneously with the command key and a right arrow navigational input when the second dome switch is activated independently of the first dome switch and simultaneously with the command key.

Osawa discloses (Figure 2) the keyboard includes first (dome portion 72) and second (dome portion 72) dome switches disposed on a printed circuit board (base plate 5) facing an underside of the key, the key being push-ably and pivotally mounted relative to the circuit board (paragraph 31; the key can be pushed downward and is pivotable) and having a left portion for activating the first dome switch when displaced towards the circuit board, and a right portion for activating the second dome switch

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when displaced towards the circuit board (Figure 3b; as can be seen from the drawing, the left and right arrows indicate the left and right portions, which can be displaced towards the circuit board (base plate)).

It would have been obvious at the time of invention to modify Lee with the teachings of Osawa, a navigational input component for moving a navigation indicator on the display screen, by incorporating the navigational input component of Osawa into the space bar of Lee because it would make the device thinner and more waterproof (paragraph 9, lines 2-3).

Lee and Osawa do not disclose the keyboard including a command key for signaling to the processor a left arrow navigational input when the first dome switch is activated independently of the second dome switch and simultaneously with the command key and a right arrow navigational input when the second dome switch is activated independently of the first dome switch and simultaneously with the command key.

Kocis discloses the keyboard including a command key for signaling to the processor (col. 9, lines 37-44; the command key (function key) signals the processor to allow for mouse emulation). By incorporating the command key (function key) of Kocis into the device of Lee and Osawa, the device would operate in the manner as described in claim 3. By pressing the command key, the keyboard would enter control mode, but when not pressing the command key, the keyboard would be in text entry mode (keyboard mode).

It would have been obvious at the time of invention to modify Lee and Osawa with the teachings of Kocis, keyboard including a command key, by incorporating the command key of Kocis into the keyboard of Lee and Osawa because the user can keep his or her hands always on the keyboard and still control both the cursor and text entry.

In regards to claim 19, Lee does not disclose the hand-held electronic device of claim 15 wherein the keyboard includes at least first and second directional switches and a central switch disposed on a printed circuit board facing an underside of the space bar key, the space bar key being pushably and pivotally mounted relative to the circuit board and having a left portion for activating the first directional switch when displaced towards the circuit board, and a right portion for activating the second directional switch when displaced towards the circuit board, and a central portion between the left and right portions for activating the central switch when displaced towards the circuit board, the central switch applying a bias against the spacebar key for providing tactile feedback when the spacebar key is displaced towards the circuit board, and the keyboard further includes a command key for signaling to the processor a left arrow navigational input when the first switch is activated independently of any other directional switches and simultaneously with the command key and a right arrow navigational input when the second switch is activated independently of any other directional switches and simultaneously with the command key.

Osawa discloses (Figure 2) the keyboard includes at least first (dome portion 72) and second (dome portion 72) directional switches and a central switch (dome portion 71) disposed on a printed circuit board (base plate 5) facing an underside of the key, the

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key being pushably and pivotally mounted relative to the circuit board (paragraph 31; the key can be pushed downward and is pivotable) and having a left portion (projection 63) for activating the first directional switch when displaced towards the circuit board, and a right portion (projection 63) for activating the second directional switch when displaced towards the circuit board (Figure 3b; as can be seen from the drawing, the left and right arrows indicate the left and right portions, which can be displaced towards the circuit board (base plate)), and a central portion (projection 62) between the left and right portions for activating the central switch when displaced towards the circuit board (paragraph 31, lines 4-8; the central portion (projection 62) is positioned centrally and activates the central switch (dome portion 71)), the central switch applying a bias against the key for providing tactile feedback when the key is displaced towards the circuit board (Figure 2; as can be seen from the drawing, once the central switch is depressed it will give a resistance pushing back towards the user providing the tactile feedback).

For motivation to combine, refer to claim 18.

Lee and Osawa do not disclose the keyboard further includes a command key for signaling to the processor a left arrow navigational input when the first switch is activated independently of any other directional switches and simultaneously with the command key and a right arrow navigational input when the second switch is activated independently of any other directional switches and simultaneously with the command key.

Kocis discloses the keyboard further includes a command key for signaling to the processor (col. 9, lines 37-44; the command key (function key) signals the processor to allow for mouse emulation). By incorporating the command key (function key) of Kocis into the device of Santilli and Osawa, the device would operate in the manner as described in claim 3. By pressing the command key, the keyboard would enter control mode, but when not pressing the command key, the keyboard would be in text entry mode (keyboard mode).

For motivation to combine, refer to claim 18.

In regards to claim 20, Lee does not disclose the hand-held electronic device of claim 19 wherein the keyboard includes third and forth directional switches disposed on the printed circuit board facing the underside of the space bar key, the space bar key having an upper portion for activating the third switch when displaced towards the circuit board, and a lower portion for activating the forth switch when displaced towards the circuit board, the central portion being between the upper and lower portions, the command key also being for signaling to the processor an up arrow navigational input when the third switch is activated independently of any other directional switches and simultaneously with the command key and a down arrow navigational input when the forth switch is activated independently of any other directional switches and simultaneously with the command key.

Osawa discloses the keyboard includes third (projection 72) and forth (projection 72) directional switches disposed on the printed circuit board facing the underside of the key, the key having an upper portion for activating the third switch when displaced

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towards the circuit board, and a lower portion for activating the forth switch when displaced towards the circuit board (Figure 3b; as can be seen from the drawing, the up and down arrows indicate the upper and lower portions, which can be displaced towards the circuit board (base plate)), the central portion being between the upper and lower portions (Figure 3b; as can be seen from the drawing, the dot in the center of all the arrows indicates the central portion, which is between the upper and lower portions).

For motivation to combine, refer to claim 18.

Lee and Osawa do not disclose the command key also being for signaling to the processor an up arrow navigational input when the third switch is activated independently of any other directional switches and simultaneously with the command key and a down arrow navigational input when the forth switch is activated independently of any other directional switches and simultaneously with the command key.

Kocis discloses the command key also being for signaling to the processor (col. 9, lines 37-44; the command key (function key) signals the processor to allow for mouse emulation). By incorporating the command key (function key) of Kocis into the device of Santilli and Osawa, the device would operate in the manner as described in claim 3. By pressing the command key, the keyboard would enter control mode, but when not pressing the command key, the keyboard would be in text entry mode (keyboard mode).

For motivation to combine, refer to claim 18.

Conclusion

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVP
July 18, 2006

AMR A. AWAD
PRIMARY EXAMINER
